Completely parenthesed expression P45102_en

Write a program that reads a completely parenthesed expression, and prints the result of evaluating it. The three possible operators are sum, substraction and multiplication. The operands are natural numbers between 0 and 9 (both included).

Input

Input has a completely parenthesed expression. That is, parentheses always appear around subexpressions that are not digits. For instance, the expression $4 + 3$ would be written

```
( 4 + 3 )
```

The expression $8 * (4 + 3)$ would be written

```
( 8 * ( 4 + 3 ) )
```

The expression $(2 - 8) * (4 + 3)$ would be written

```
((2-8)*(4+3))
```

Output

Print a line with an integer number: the result of evaluating the given expression.

Hint

Note that an expression is either directly a digit, or an opening parenthesis, followed by an expression, by an operator, by another expression, and by a closing parenthesis. Take inspiration in this fact to write a simple recursive program.

Sample input 1

```
9
```

Sample output 1

```
9
```

Sample input 2

```
( 3 + 4 )
```

Sample output 2

```
7
```

Sample input 3

```
( 8 * ( 4 + 3 ) )
```

Sample output 3

```
56
```

Sample input 4

```
( ( 2 - 8 ) * ( 4 + 3 ) )
```

Sample output 4

```
-42
```

Sample input 5

```
( ( 3 * 2 ) + 1 )
```

Sample output 5

```
7
```

Problem information

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